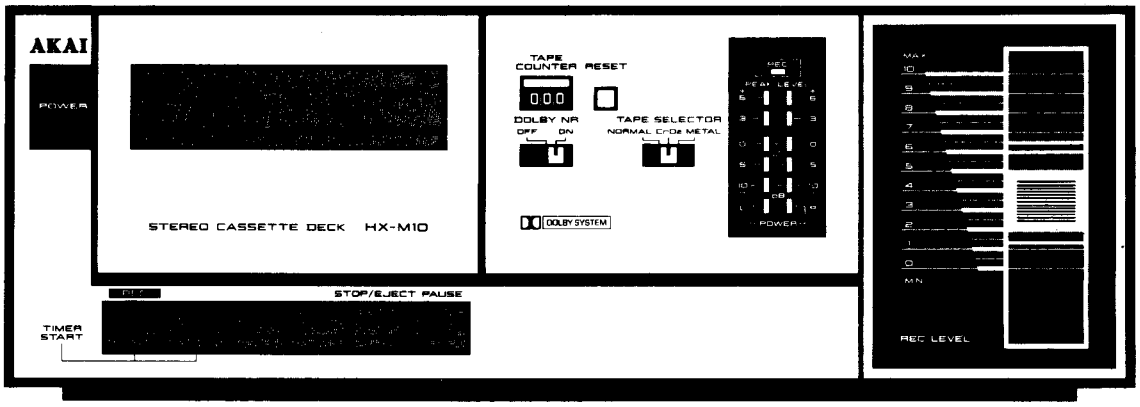
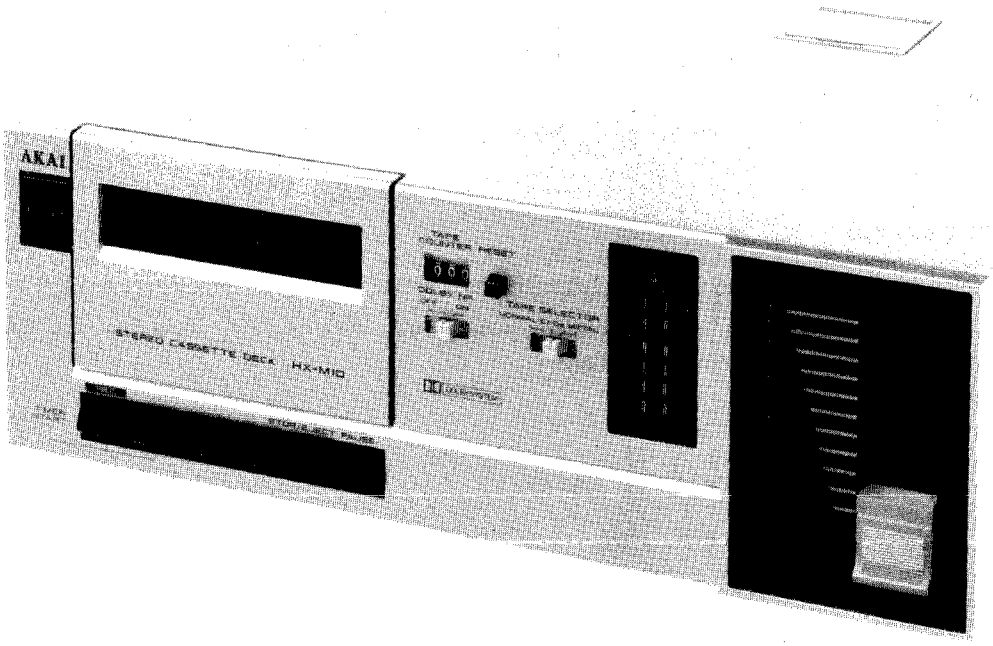
HX-M10

AKAI SERVICE MANUAL



STEREO CASSETTE DECK

MODEL HX-M10



STEREO CASSETTE DECK

MODEL HX-M10

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SECTION 2 PARTS LIST 11

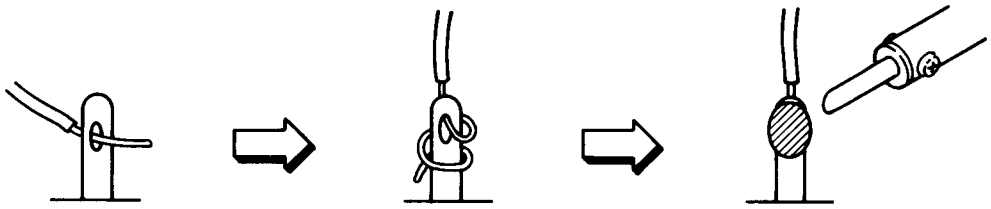
SAFETY INSTRUCTIONS

SAFETY CHECK AFTER SERVICING

Confirm the specified insulation resistance between power cord plug prongs and externally exposed parts of the set is greater than 10 Mohms, but for equipment with external antenna terminals (tuner, receiver, etc.) and is intended for [C] or [A], specified insulation resistance should be more than 2.2 Mohms (ground terminals, microphone jacks, headphone jacks. line-in-out jacks etc.)

PRECAUTIONS DURING SERVICING

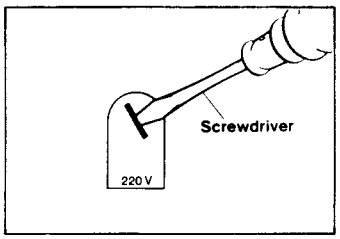
1. Parts identified by the ⚠ symbol parts are critical for safety.
   Replace only with parts number specified.
2. In addition to safety, other parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation. These must also be replaced only with specified replacements.
   Examples: RF converters, tuner units, antenna selector switches, RF cables, noise blocking capacitors, noise blocking filters, etc.
3. Use specified internal wiring. Note especially:
   1) Wires covered with PVC tubing
   2) Double insulated wires
   3) High voltage leads
4. Use specified insulating materials for hazardous live parts. Note especially:
   1) Insulation Tape
   2) PVC tubing
   3) Spacers (Insulating Barriers)
   4) Insulation sheets for transistors
   5) Plastic screws for fixing microswitch (especially in turntable)
5. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.), wrap ends of wires securely about the terminals before soldering.



6. Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.).
7. Check that replaced wires do not contact sharp edged or pointed parts.
8. Also check areas surrounding repaired locations.
9. Use care that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

VOLTAGE CONVERSION

Models for Canada, USA, Europe, UK and Australia are not equipped with this facility. Each machine is preset at the factory according to destination, but some machines can be set to 110V, 120V, 220V, or 240V as required.
If your machine's voltage can be converted:
Before connecting the power cord, turn the VOLTAGE SELECTOR located on the rear panel with a screwdriver until the correct voltage is indicated.



CYCLE CONVERSION

Cycle Conversion are not necessary since HX-M10 use a DC MOTOR.

SECTION 1

SERVICE MANUAL

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For basic adjustments, measuring methods, and operating principles, refer to GENERAL TECHNICAL MANUAL.

I. SPECIFICATIONS

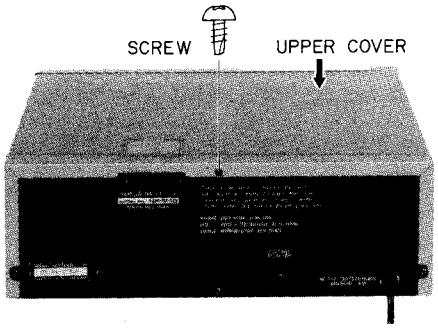
TRACK SYSTEM	4 Track 2 channel Stereo System
TAPE	Philips Type Cassette
MOTOR	Electronically speed controlled DC Motor for capstan drive x 1
HEADS	High Density head for recording/playback x 1 Erase head x 1
WINDING TIME	110 sec. (C-60 tape)
WOW & FLUTTER	0.05% (WRMS), 0.09% (DIN. WTD)
DISTORTION	0.9% (Metal)
FREQUENCY RESPONSE	Metal: 30 Hz to 17,000 Hz ± 3 dB CrO_2: 30 Hz to 16,000 Hz ± 3 dB Normal: 30 Hz to 15,000 Hz ± 3 dB
S/N	56 dB (Metal Tape) Dolby NR ON: Improves up to 5 dB at 1 kHz, 10 dB above 5 kHz
INPUT SENSITIVITY/IMPEDANCE	LINE: 70 mV/47 kohms
OUTPUT SENSITIVITY/IMPEDANCE	LINE: 390 mV/1 kohms
POWER REQUIREMENTS	120V, 60 Hz for USA and Canada 220V, 50 Hz for Europe except UK 240V, 50 Hz for UK and Australia 110V/120V/220V/240V, 50/60 Hz switchable for other countries
DIMENSIONS	350 (W) x 115 (H) x 254 (D) mm (13.8 x 4.5 x 10.0 inches)
WEIGHT	3.0kg (6.6 lbs)

* For improvement purposes, specifications and design are subject to change without notice.
* Noise Reduction manufactured under license from Dolby Laboratories Licensing Corporation. "Dolby" and the double-D symbol are trade marks of Dolby Laboratories Licensing Corporation.

II. DISMANTLING OF UNIT

In case of trouble, etc. necessitating dismantling, please dismantle in the order shown in the photographs. Reassemble in reverse order.

3



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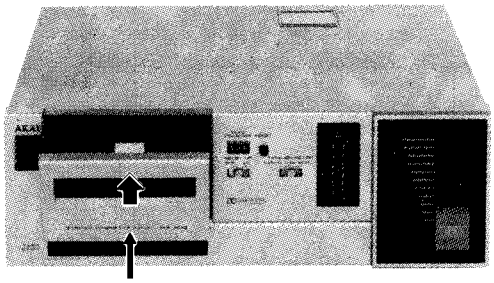
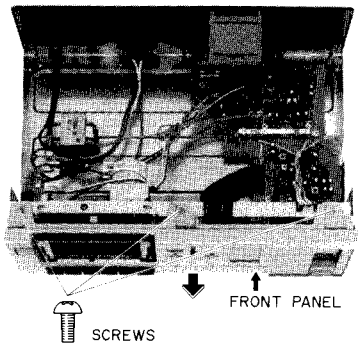


4



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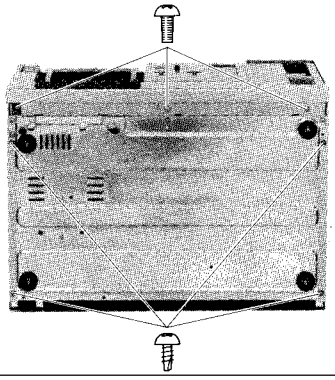
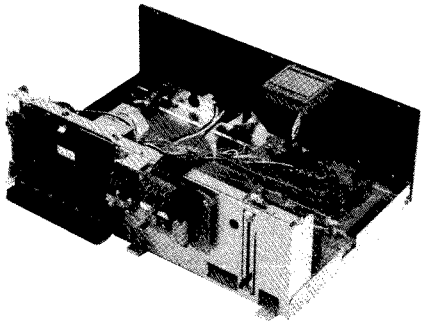


5



III. CONTROLS

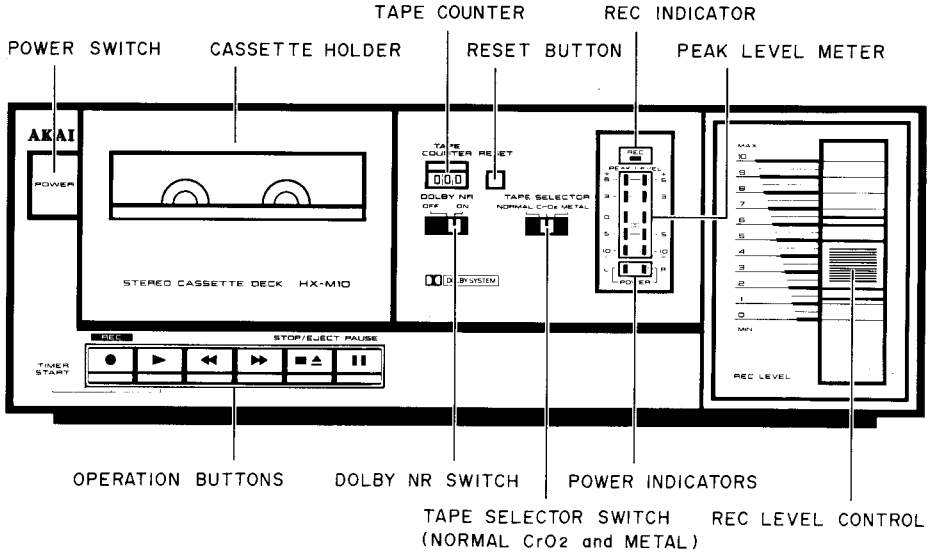


Fig. 3-1

IV. PRINCIPAL PARTS LOCATION

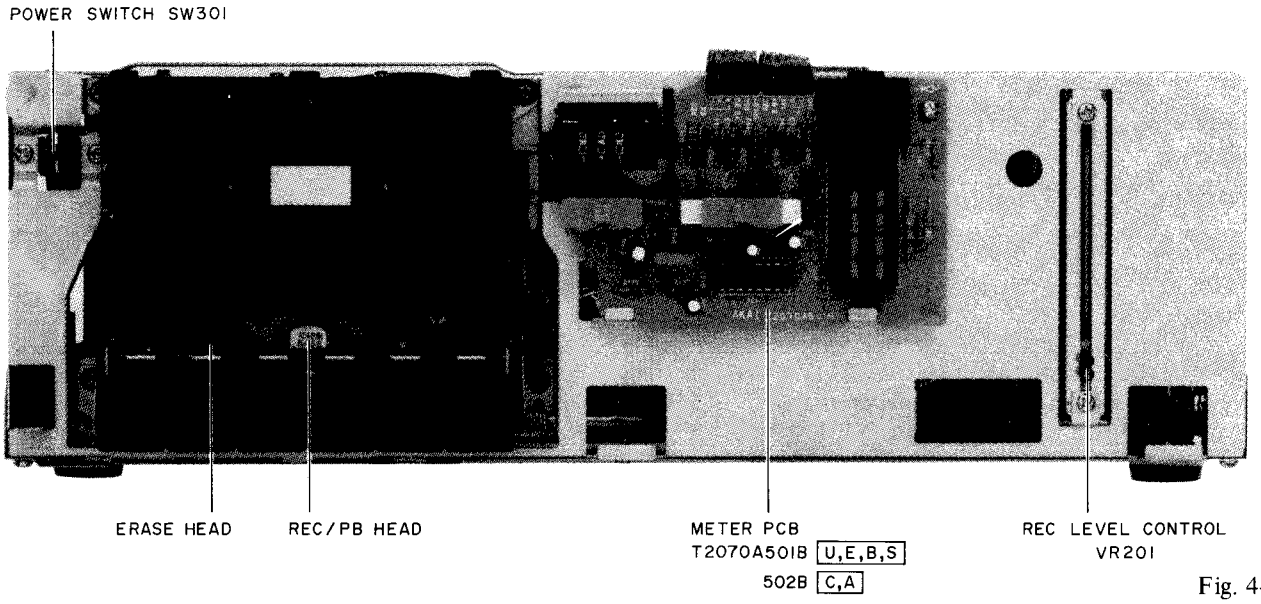


Fig. 4-1

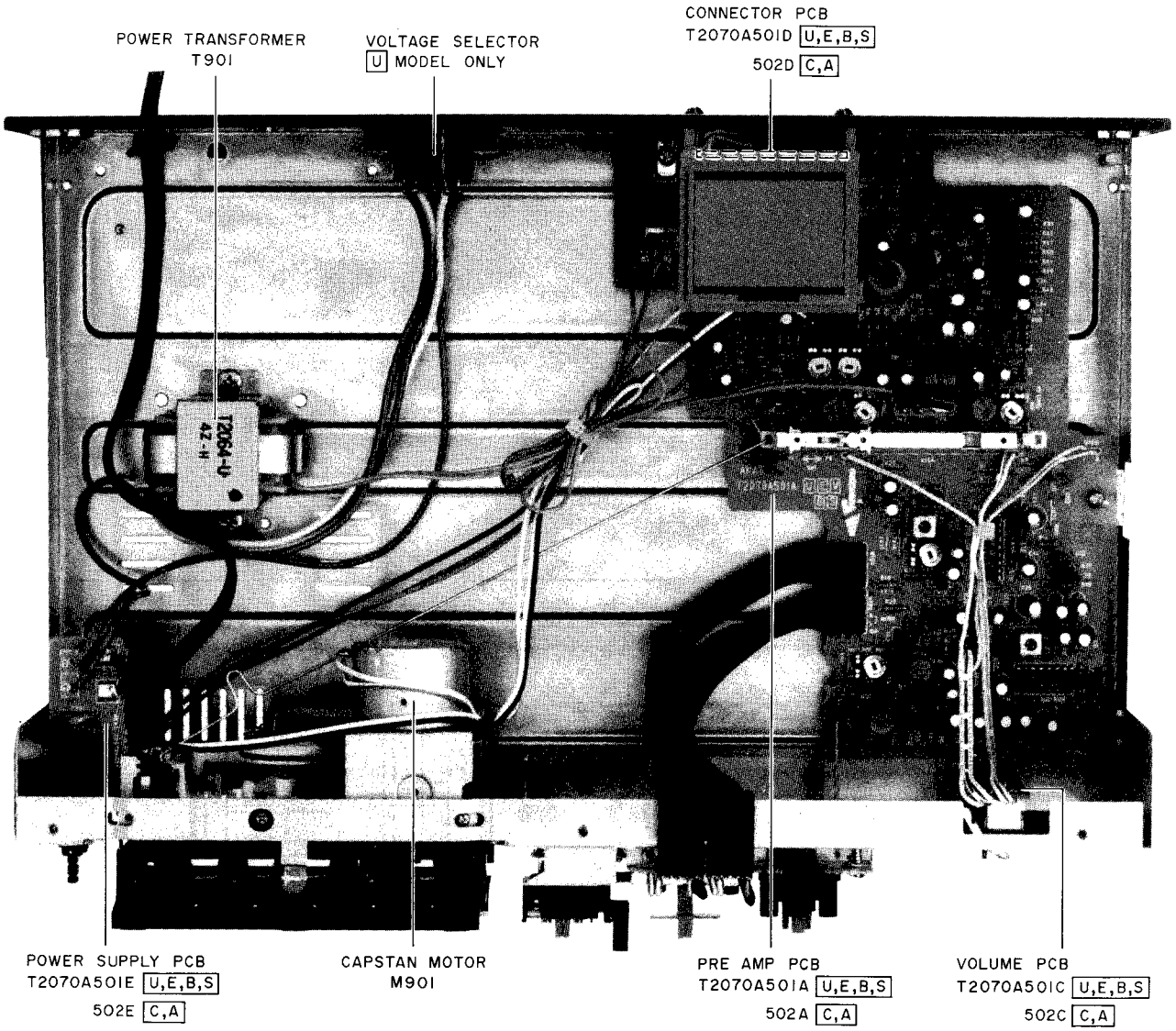


Fig. 4-2

V. MECHANICAL ADJUSTMENT

5-1. PINCH ROLLER PRESSURE MEASUREMENT

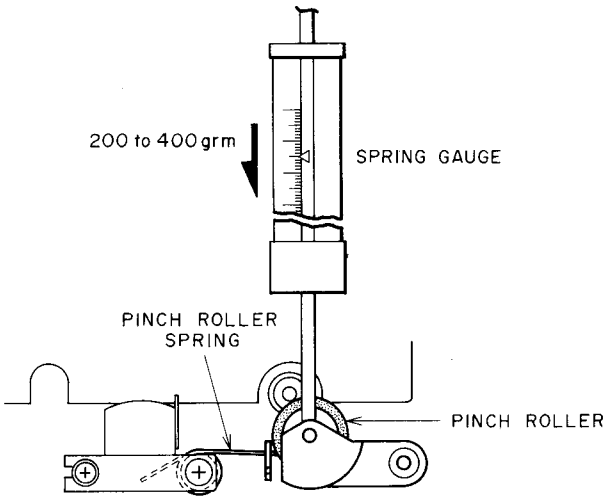


Fig. 5-1

Put in PLAY mode. Push pinch roller arm down with the spring gauge, push the pinch Roller 1 to 2 mm from the Capstan and release slowly. Read the spring gauge at the moment the pinch roller touches the capstan and begins to rotate. Specified contact pressure measurement. If there is no measurement obtained, Adjust or Replace the pinch Roller spring.
200 to 400 grm

5-2. WINDING TORQUE MEASUREMENT IN EACH MODE

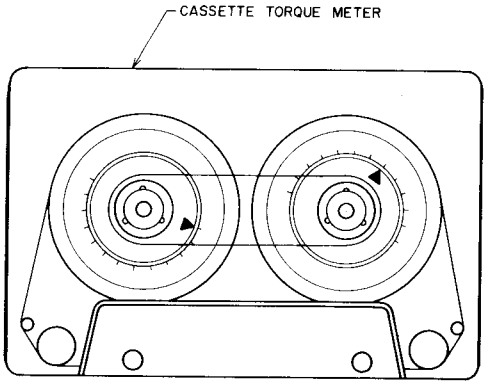


Fig. 5-2

Insert cassette torque meter (AJ-751179) and measure in each mode.
PLAY mode
Take up Torque: 35 to 75 grm-cm
Back tension torque: 1 to 6 grm-cm
FAST FORWARD, REWIND mode
Take up Torque: 70 to 160 grm-cm

5-3. TAPE SPEED ADJUSTMENT

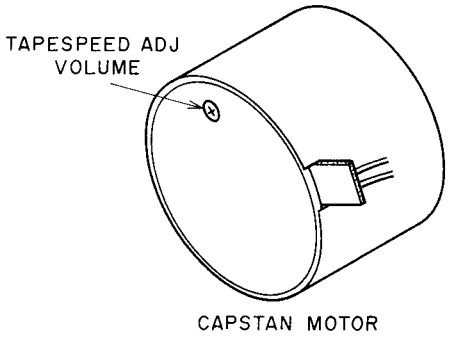


Fig. 5-3

Connect a frequency Counter to Line output terminals. Play Back a 1,000 Hz Tape Speed Test Tape (AT-750774) or 3,150 Hz Tape Speed Test Tape (AT-751263) and adjust a Tape Speed Adjustment Volume (see Fig. 5-3) to obtain a tape speed of 1,000 Hz ± 10 Hz, or 3,150 ± 30 Hz.

5-4. REC/PB HEAD AZIMUTH ADJUSTMENT

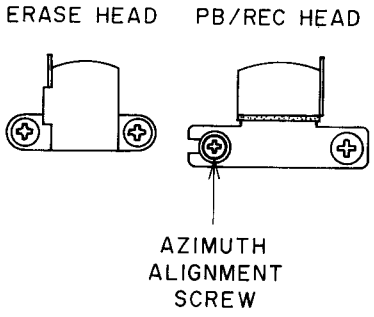


Fig. 5-4

Play Back a 10 kHz Azimuth Alignment tape (AT-750778) and Adjust the Azimuth Alignment Screw, until the output levels of both channels are maximum. After Adjustment, Paintlock the Azimuth Alignment Screw.

5-5. JOINT REC ADJUSTMENT

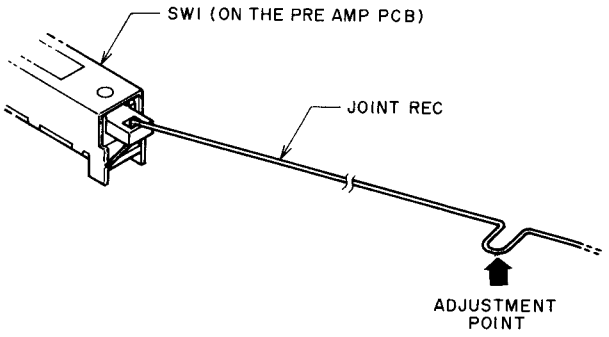


Fig. 5-5

Adjust adjustment point of JOINT REC so that SW1 is pulled completely at REC mode, it is released at PB mode.

VI. PRE-AMPLIFIER ADJUSTMENT

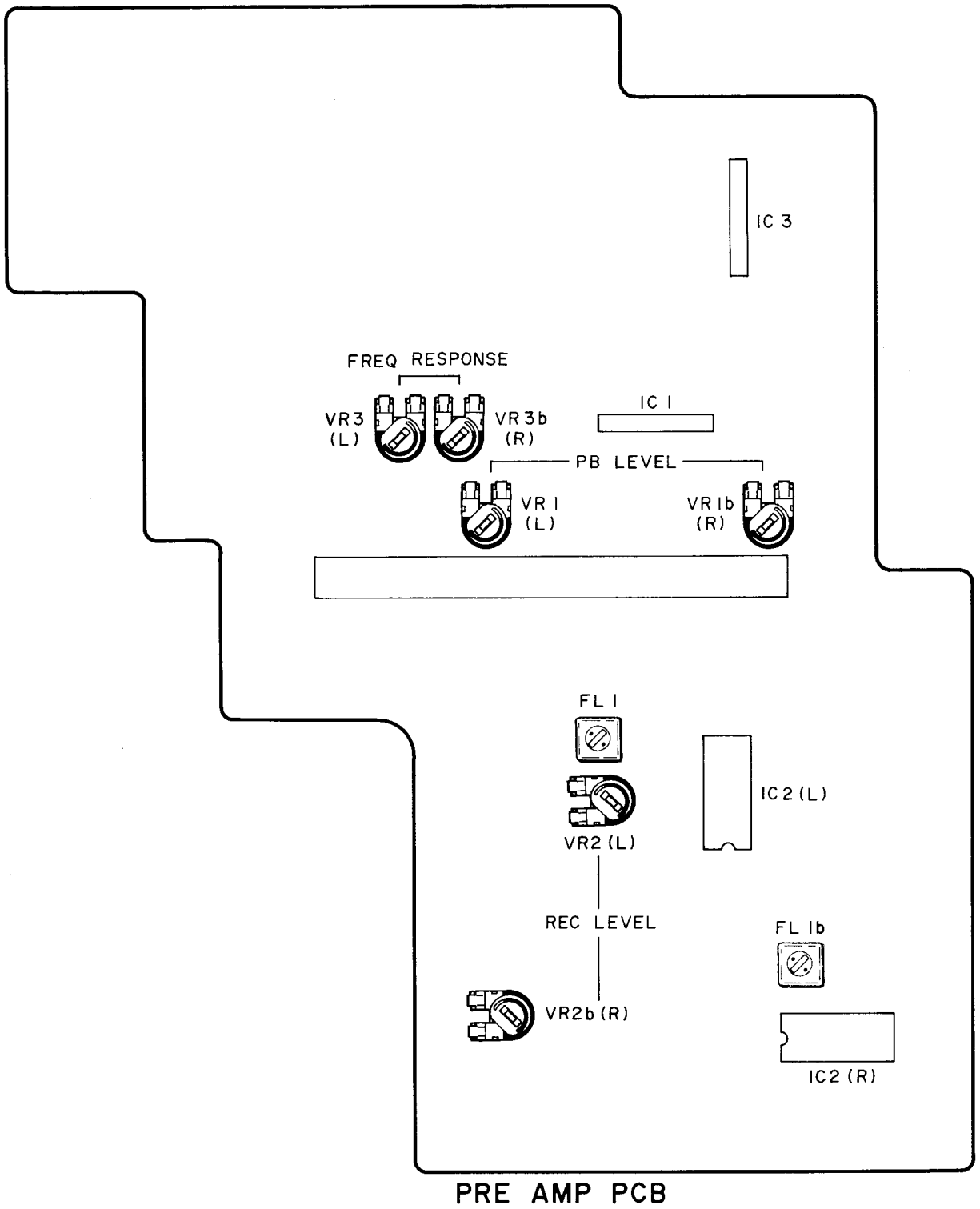


Fig. 6-1 PRE-AMP PCB ADJ POINTS

Step	Adjustment Item	Test Tape & Supply Signal	Mode	Adjustment Parts	Result	Remarks
1	PB LEVEL	315Hz	PB	VR 1 (Lch) VR 1b (Rch)	−6.0 ± 0.2 dBm	
2	NORMAL POSITION FREQUENCY RESPONSE	NORMAL Blank Tape 1kHz, 10kHz −26.0 dBm	REC/PB	VR 3 (Lch) VR 3b (Rch)	1kHz, 10kHz −26.0 ± 0.5 dBm	
3	REC LEVEL	NORMAL Blank Tape 315kHz, −6.0 dBm	REC/PB	VR 2 (Lch) VR 2b (Rch)	−6.0 ± 0.2 dBm	

NOTE: 1. All adjustments are without Dolby.
2. Use the following cassette measuring tapes:

NORMAL TAPE : Maxell UDI C-60
CrO_2 TAPE : TDK SA C-60
METAL TAPE : TDK MA C-60

VII. PC BOARD TITLES AND IDENTIFICATION NUMBERS

PC Board Title	PC Board Number	Remark
PRE AMP PC Board	T2070A501A	U, E, B, S
	T2070A502A	C, A
METER PC Board	T2070A501B	U, E, B, S
	T2070A502B	C, A
VOLUME PC Board	T2070A501C	U, E, B, S
	T2070A502C	C, A
CONNECTOR PC Board	T2070A501D	U, E, B, S
	T2070A502D	C, A
POWER SUPPLY PC Board	T2070A501E	U, E, B, S
	T2070A502E	C, A

SECTION 2

PARTS LIST

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2. PC BOARD BLOCK 14
3. PRE AMP PC BOARD 14
4. METER PC BOARD 14
5. VOLUME PC BOARD 14
6. POWER SUPPLY PC BOARD 14
7. ASSEMBLY BLOCK 14
8. FINAL ASSEMBLY BLOCK 15
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Resistors and Capacitors which are not listed in this parts list, please refer to COMMON LIST FOR SERVICE PARTS.

ATTENTION

1. When placing an order for parts, be sure to list the parts no. model no., and description of each part. If any of this information is omitted, there are instances in which parts cannot be shipped or the wrong parts will be delivered.
2. Please be careful not to make a mistake in the parts no. If the parts no. is in error, a part different from the one ordered may be delivered.
3. Because part numbers and part definitions and supply in the Preliminary Parts List may have been the subject of changes, please use this parts list for all future reference.

HOW TO USE THIS PARTS LIST

1. This Parts List shows those parts which are considered necessary for repairs. Other parts, such as resistors and capacitors, are shown in the "Common List for Service Parts" from which these parts should be selected and parts.
2. The Recommended Spare Parts List shows those parts in the Parts List which are considered particularly important for service.
3. Parts not shown in the Parts List and "Common List for Service Parts" will not in principle be supplied.
4. How to read the parts list

a) Mechanism Block

2. HEAD BASE BLOCK

REF. NO.	PART NO.	DESCRIPTION
2-1x	BH-T2023A320A	HEAD BASE BLOCK GX-F66R
2-2	HP-H2206A010A	HEAD R/P PR4-8FU C
2-3	ZS-477876	PAN20×03STL CMT
2-4	ZS-536488	BID20×08STL CMT
2-5	ZG-402895	CS ANGLE ADJUST SPRING

SP (Service Parts) Classification

A small "x" indicates the inability to show that particular part in the Photo or Illustration.

This number corresponds with the individual parts index number in that figure

This number corresponds with the Figure Number

b) P.C Board Block

6. SYS. CON. P C BOARD BLOCK

REF. NO.	PART NO.	DESCRIPTION
6-1	BA-T2034A070A	PC SYS CON BLK GX-F44R
6-IC1	EI-324536	IC HD14049BP
6-IC2	EI-336801	IC MB8841-564M
6-IC3	EI-331661	IC SN7405N
6-IC4	EI-336725	IC M54527P
6-TR1to4	ET-200985	TR 2SC2603 F,G
6-TR5to28	ET-554657	TR 2SA733A P,Q
6-D1	ED-318292	D SILICON H 1S2473T-77 T26
6-D2to4	ED-308952	D GERMA V 1K34A-LR F07
6-D5to10	ED-318292	D SILICON H 1S2473T-77 T26
6-X1	EI-318384	OSC X'TAL NC-18C 3.579545MHZ

SP (Service Parts) Classification

These reference symbols correspond with component symbols in the Schematic Diagrams.

5. The kind of part and its installation position can both be determined by the Part Number. To determine where a part number is listed, utilize the Parts Index at the end of the Parts List. It is necessary first of all to find the Part Number. This can be accomplished by using the Reference Number listed at the right of the part number in the Parts Index.

WARNING

⚠ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURE'S RECOMMENDED PARTS

AVERTISSEMENT

⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÉCES RECOMMANDEES PAR LE FABRICANT

RECOMMENDED SPARE PARTS

Because, if the parts listed below are on hand, almost any repair can be accomplished, we suggest that you stock these Recommended Spare Parts Items.

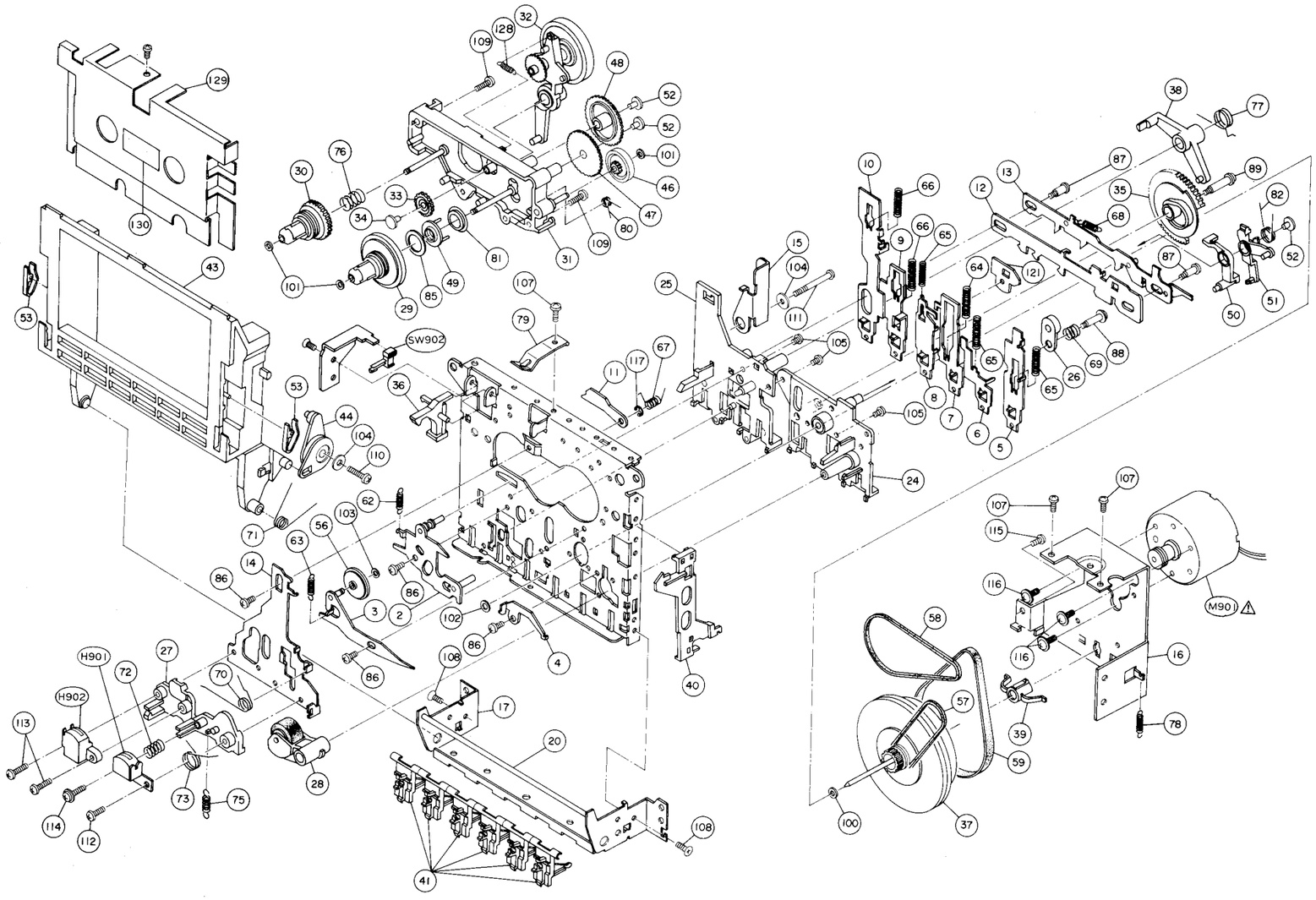
NO.		PART NO.	DESCRIPTION
1		BF-712807	FLYWHEEL ASSY
2		BL-712799	PINCH ROLLER ARM ASSY
3		BM-712825	⚠ MOTOR (W/PULLEY) ASSY
4	N	BR-715919	SUPPLY REEL ASSY
5	N	BR-715918	TAKE-UP REEL ASSY
6		BT-354051	⚠ TRANS POWER T2064 (A,C)
7		BT-354052	⚠ TRANS POWER T2064 (E,V,Y1)
8		BT-354050	⚠ TRANS POWER T2064 (U)
9		ED-530319	⚠ D SILICON DBA10B 100/1.0A
10		ED-324014	⚠ D ZENER H HZ11 B1
11		ED-351901	D LED GL-104H50 YELLOW
12		ED-351881	D LED GL-9PR23 RED
13		ED-301911	D SILICON H DS448
14		EF-318608	⚠ FUSE GGS A 250V 1.00A [C,A]
15		EF-601942	⚠ FUSE SEMKO T 630MA 250V [U,E,B,S]
16		EH-336776	FILTER DB D07003K 100KHZ
17		EI-349590	IC BA3280EC
18		EI-353289	IC IR2E27A
19		EI-349591	IC LA2730
20		EI-337228	IC M5218L0
21	N	ES-356115	⚠ SW PUSH J-U3066#01 01-1
22		ES-305733	⚠ SW SELECTOR HXW0131-260 01-4 [U]
23		ES-713179	SW LSA-1123-37
24	N	ES-357682	SW SLIDE CL-110K 1-10-02
25	N	ES-357680	SW SLIDE SSSY02102A 2-02-02N
26	N	ES-357679	SW SLIDE SSY043 2-04-03N
27	N	ET-357845	⚠ TR 2SC3242A F,G
28		ET-308472	TR 2SA1115 E,F,G
29	N	ET-353377	TR 2DB774 S,T
30		ET-308977	TR 2SC2274K F
31		ET-349705	TR 2SC2320 E,F,G
32		ET-308141	TR 2SC2603 G
33		ET-310148	TR 2SD612K E,F
34		EV-315541	R S-FIX H D8 3P 503
35	N	EV-357681	VR SLIDE VJ6012-2G A503x2
36		HE-337047	HEAD E HAJAB3040A C
37		HP-712824	HEAD R/P HY424528 SVK
38		MB-712818	BELT AUTO
39		MB-712820	BELT DRIVE
40		MB-712819	BELT FR
41	N	MB-357571	BELT 0.8xD52.4 CR HS65
42	N	MC-357705	COUNTER MK395-058
43		MI-712803	CLUTCH ARM ASSY
44		MI-712813	GEAR AUTO
45		MI-711710	GEAR C
46		MI-172814	GEAR CAM AUTO
47		MI-712804	GEAR FF
48		MI-712817	IDLER PLAY

"NOTE" N: New Parts.

SYMBOL FOR DESTINATION

[A] : AAL (U.S.L)
[B] : UK (England)
[C] : CSA (Canada)
[E] : CEE (Europe)
[S] : SAA (Australia)
[U] : U/T (Universal Area)
[V] : VDE (West Germany)

MECHA AKI-94FMF BLOCK



1. MECHA AKI-94FMF BLOCK

REF. NO.	PART NO.	DESCRIPTION
	MECHA AKI-94FMF BLOCK	
1-1	BB-357113	MECHA AKI-94FMF BLK
1-24	MV-712797	HOLDER LEVER (A) ASSY
1-28	BL-712799	PINCH ROLLER ARM ASSY
1-29	BR-715918	TAKE-UP REEL ASSY
1-30	BR-715919	SUPPLY REEL ASSY
1-32	MI-712803	CLUTCH ARM ASSY
1-33	MI-712804	GEAR FF
1-35	MI-711710	GEAR C
1-36	ML-712806	REC SENSOR
1-37	BF-712807	FLYWHEEL ASSY
1-39	MZ-712808	HOLDER CAPSTAN
1-40	ML-712809	LEVER EJECT
1-43	TC-712810	LID FRAME
1-44	TC-712811	DAMPER ASSY

REF. NO.	PART NO.	DESCRIPTION
1-46	MI-712812	PULLEY AUTO
1-47	MI-712813	GEAR AUTO
1-48	MI-712814	GEAR CAM AUTO
1-49	MI-715920	CLUTCH AUTO
1-53	ZG-712816	CLAMP CASSETTE
1-56	MI-712817	IDLER PLAY
1-57	MB-712818	BELT AUTO
1-58	MB-712819	BELT FR
1-59	MB-712820	BELT DRIVE
1-72	ZG-749268	SP HEAD
1-73	ZG-715921	SP PINCH ROLLER
1-79	ZG-712822	SP PACK
1-85	TC-712823	FELT AUTO CLUTCH
1-112	ZS-536488	BID20x08STL CMT
1-113	ZS-749292	BID20x8.5STL CMT

REF. NO.	PART NO.	DESCRIPTION
1-114	ZS-749293	BID20x09STL CMT TW
1-H901	HP-712824	HEAD R/P HY424528 SVK
1-H902	HE-337047	HEAD E HAJAB3040A C
1-M901	BM-712825	⚠ MOTOR (W/PULLEY) ASSY
1-SW902	ES-713179	SW LSA-1123-37
	ASSEMBLY BLOCK	
1-129	TC-356935	DECORATION PLATE
1-130	SZ-357722	REFLECTOR

NOTE: Parts will not be supplied if they are not listed in the parts list, even if they appear on the assembling illustrations with reference No.

2. PC BOARD BLOCK

REF. NO.	PART NO.	DESCRIPTION
2-1A	BA-T2070A020A	PC PRE AMP BLK HX-M10(U)
2-1B	BA-T2070A020B	PC PRE AMP BLK HX-M10(C,A)
2-1C	BA-T2070A020C	PC PRE AMP BLK HX-M10(E,V,B,S)

NOTE: PC PRE AMP BLK consists of following PC BOARDS.
- PRE AMP PC BOARD
- METER PC BOARD
- VOLUME PC BOARD
- POWER SUPPLY PC BOARD

3. PRE AMP PC BOARD

REF. NO.	PART NO.	DESCRIPTION
	PRE AMP PC BOARD	
3-IC1	EI-349590	IC BA3280EC
3-IC2	EI-349591	IC LA2730
3-IC3	EI-337228	IC M5218L0
3-TR1,2	ET-349705	TR 2SC2320 E,F,G
3-TR3,4	ET-308977	TR 2SC2274K F
3-TR5	ET-349705	TR 2SC2320 E,F,G
3-TR6	ET-308472	TR 2SA1115 E,F,G
3-TR7	ET-308141	TR 2SC2603 G
3-TR8	ET-353377	TR 2SB774 S,T
3-TR9	ET-308141	TR 2SC2603 G
3-TR10	ET-310148	⚠ TR 2SD612K E,F
3-TR11	ET-308141	TR 2SC2603 G
3-TR12	ET-357845	⚠ TR 2SC3242A F,G
3-D1to3	ED-301911	D SILICON H DS448
3-D4	ED-330319	⚠ D SILICON DBA10B 100/1.0A
3-D5	ED-324014	⚠ D ZENER H HZ11 B1
3-D6	ED-301911	D SILICON H DS448
3-SW1	ES-357682	SW SLIDE CL-110K 1-10-02
3-VR1to3	EV-315541	R S-FIX H D8 3P 503
3-FL1	EH-336776	FILTER DB D07003K 100KHZ
3-FL2	EO-315758	COIL TUN 1 100Z-431 100.00KHZ
3-L1	EO-357050	COIL FIX 1 RC875 822J
3-T1	EO-349589	COIL OSC 1 32-5016-12
3-C1	EC-310440	C STY V S05 CQFS 471J 50DC
3-C10	EC-314992	C STY V S05 CQFS 681J 50DC
3-C26	EC-331183	C STY V S05 CQFS 102J 50DC
3-C32	EC-326138	C PP V F10 APH 182J 630DC
3-C39	EC-352478	C EC V CUT SE 102M 25.0DC
	ASSEMBLY BLOCK	
3-F1A	EF-601942	⚠ FUSE SEMKO T 630MA 250V [U,E,V,B,S]
3-F1B	EF-318608	⚠ FUSE GGS A 250V 1.00A [C,A]

4. METER PC BOARD

REF. NO.	PART NO.	DESCRIPTION
4-IC101	EI-353289	IC IR2E27A
4-D101	ED-351901	D LED GL-104H50 YELLOW
4-D102to104	ED-351881	D LED GL-9PR23 RED
4-SW101	ES-357679	SW SLIDE SSY043 2-04-03N
4-SW102	ES-357680	SW SLIDE SSSY02102A 2-02-02N
4-R108	ER-325638	⚠ R OMF H S15 FS 1W 271J
4-R112	ER-333607	⚠ R CB H S15 FS RDS 1/2W 121J

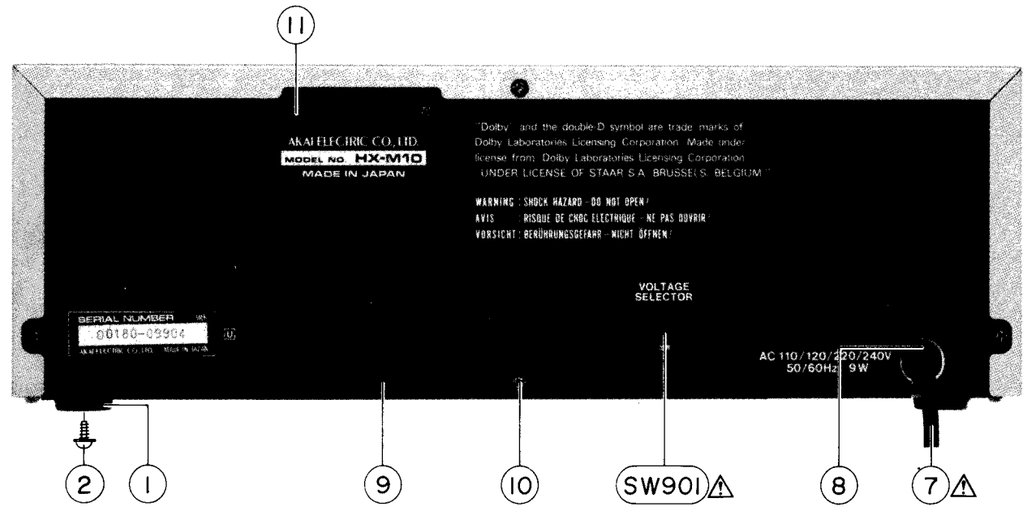
5. VOLUME PC BOARD

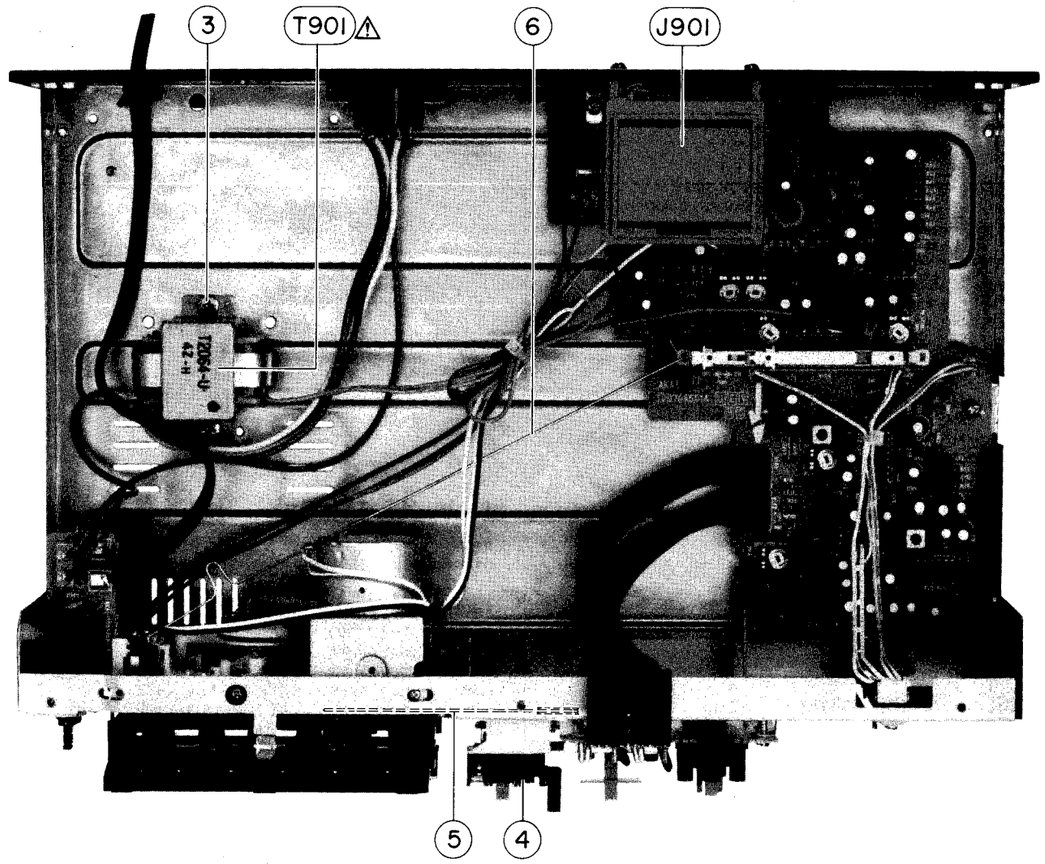
REF. NO.	PART NO.	DESCRIPTION
5-VR201	EV-357681	VR SLIDE VJ6012-2G A503×2

6. POWER SUPPLY PC BOARD

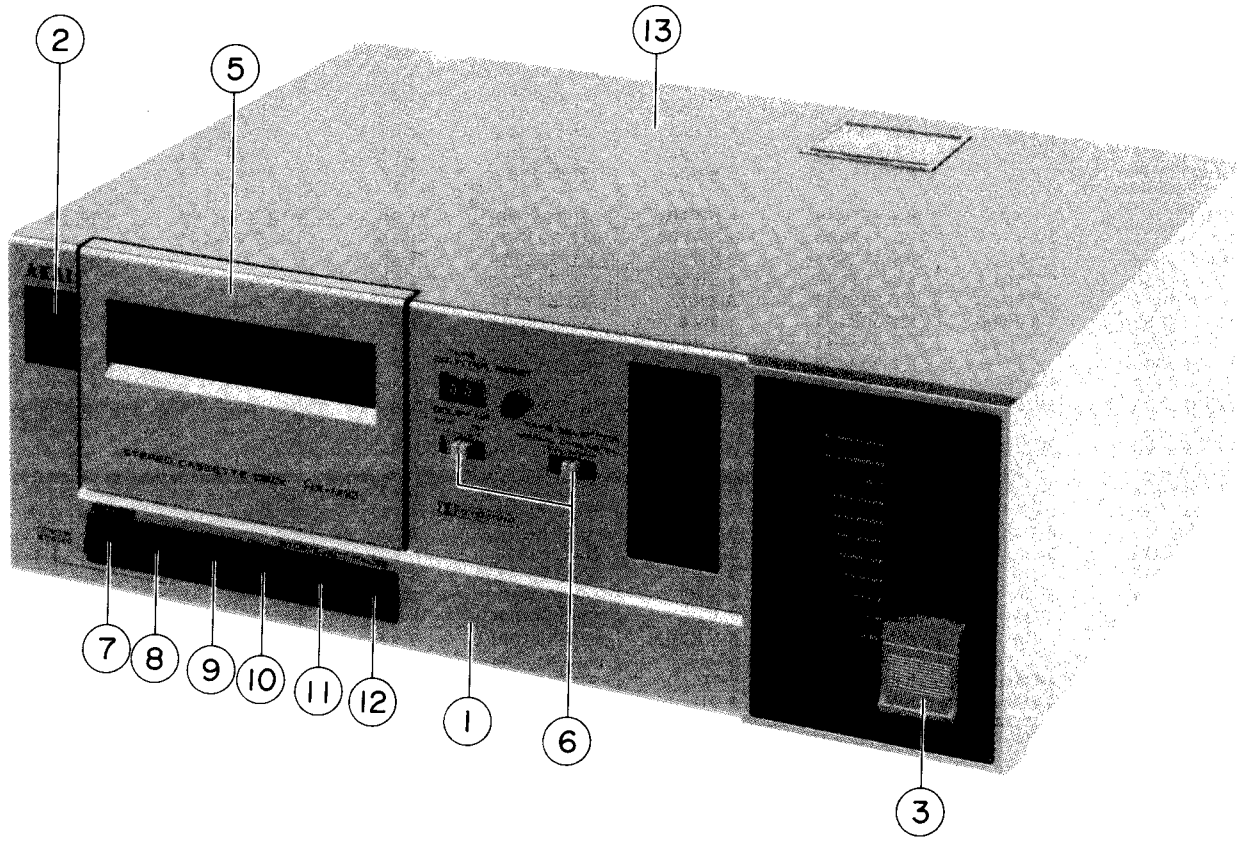
REF. NO.	PART NO.	DESCRIPTION
6-SW301	ES-356115	⚠ SW PUSH J-U3066#01 01-1
6-C301A	EC-357723	⚠ C CE V F 472Z 250AC [U,C,A]
6-C301B	EC-338496	⚠ C CE V FZ 472P 400AC [E,V,B,S]

ASSEMBLY BLOCK





FINAL ASSEMBLY BLOCK



7. ASSEMBLY BLOCK

REF. NO.	PART NO.	DESCRIPTION
7-1	SA-349332	FOOT
7-2	ZS-331567	T2BR30x08STL CMT C080
7-3	ZS-304022	ST PAN40x06STL CMT
7-4	MC-357705	COUNTER MK395-058
7-5	MB-357571	BELT 0.8xD52.4 CR HS65
7-6	MZ-357719	JOINT REC
7-7A	EW-355592	⚠ AC CORD 2CORES KP-224, VFF DK-8 U/T [U]
7-7B	EW-359317	⚠ AC CORD 2CORES KP-8, SPT-1 D-10 UC [C,A]
7-7C	EW-336923	⚠ AC CORD 2 CORES KP-419C, LTCE-2F EV [E,V]
7-7D	EW-346249	⚠ AC CORD 2 CORES LCFL2x0.75 B [B]
7-7E	EW-347898	⚠ AC CORD 2 CORES VM-0436, LCFL S [S]
7-8	EZ-631945	STRAIN RELIEF SR-4N-4
7-9A	SP-349490E	PANEL REAR HX-M10 (U)
7-9B	SP-349490F	PANEL REAR HX-M10 (C,A)
7-9C	SP-349490G	PANEL REAR HX-M10 (E,V)
7-9D	SP-349490H	PANEL REAR HX-M10 (B)
7-9E	SP-349490J	PANEL REAR HX-M10 (S)
7-10	ZS-447761	T2BR30x06STL BNI
7-11	ZS-350934	PT BR30x08STL BNI
7-T901A	BT-354050	⚠ TRANS POWER T2064 (U)
7-T901B	BT-354051	⚠ TRANS POWER T2064 (A,C)
7-T901C	BT-354052	⚠ TRANS POWER T2064 (E,V,Y1)
7-T901D	BT-354053	⚠ TRANS POWER T2064 (B,S)
7-SW901	ES-305733	⚠ SW SELECTOR HXW0131-260 01-4 [U]
7-J901	EJ-351021	SOCKET CONNECTER M1701 12P
7-J901B	EJ-356521	SOCKET CONNECTER-B M1701-A 12P

8. FINAL ASSEMBLY BLOCK

REF. NO.	PART NO.	DESCRIPTION
8-1	BD-T2070A030A	PANEL FRONT BLK HX-M10
8-1B	BD-T2070A030B	PANEL FRONT BLK HX-M10-B
8-2	SK-343017F	KNOB POWER-B
8-3	SK-357576	KNOB REC
8-3B	SK-357576B	KNOB REC-B
8-4x	ZS-320906	ST BR30x06STL CMT [PANEL FRONT FIX]
8-5	BD-B357594A	LID PART
8-5B	BD-B357594B	LID-B PART
8-6	SK-343090C	KNOB SLIDE (3)
8-7	SK-349496A	KNOB OPERATION REC
8-8	SK-349496B	KNOB OPERATION PLAY
8-9	SK-349496C	KNOB OPERATION REW
8-10	SK-349496D	KNOB OPERATION FF
8-11	SK-349496E	KNOB OPERATION STOP
8-12	SK-349496F	KNOB OPERATION PAUSE
8-13	SP-349489	COVER UPPER
8-13B	SP-349489C	COVER UPPER (3)

NOTE: PANEL FRONT BLK consists of 8-2 and 8-3.

SYMBOL FOR COLOR VARIATION

NON : STANDARD COLOR
B or BL : BLACK

INDEX

PART NO.	REF. NO.	PART NO.	REF. NO.	PART NO.	REF. NO.	PART NO.	REF. NO.
BA-T2070A020A	2-1A	EI-353289	4-IC101	MB-712819	1-58	ZG-712822	1-79
BA-T2070A020B	2-1B	EJ-351021	7-J901	MB-712820	1-59	ZG-715921	1-73
BA-T2070A020C	2-1C	EJ-356521	7-J901B	MC-357705	7-4	ZG-715922	1-128
BB-357113	1-1	EO-315758	3-FL2	MI-711710	1-35	ZG-749268	1-72
BD-B357594A	8-5	EO-349589	3-T1	MI-712803	1-32	ZS-304022	7-3
BD-B357594B	8-5B	EO-357050	3-L1	MI-712804	1-33	ZS-320906	8-4x
BD-T2070A030A	8-1	ER-325638	4-R108	MI-712812	1-46	ZS-331567	7-2
BD-T2070A030B	8-1B	ER-333607	4-R112	MI-712813	1-47	ZS-350934	7-11
BF-712807	1-37	ES-305733	7-SW901	MI-712814	1-48	ZS-447761	7-10
BL-712799	1-28	ES-356115	6-SW301	MI-712817	1-56	ZS-536488	1-112
BM-712825	1-M901	ES-357679	4-SW101	MI-715920	1-49	ZS-749292	1-113
BR-715918	1-29	ES-357680	4-SW102	ML-712806	1-36	ZS-749293	1-114
BR-715919	1-30	ES-357682	3-SW1	ML-712809	1-40		
BT-354050	7-T901A	ES-713179	1-SW902	MV-712797	1-24		
BT-354051	7-T901B	ET-308141	3-TR7	MZ-357719	7-6		
BT-354052	7-T901C	ET-308141	3-TR9	MZ-712808	1-39		
BT-354053	7-T901D	ET-308141	3-TR11	SA-349332	7-1		
EC-310440	3-C1	ET-308472	3-TR6	SK-343017F	8-2		
EC-314992	3-C10	ET-308977	3-TR3	SK-343090C	8-6		
EC-326138	3-C32	ET-308977	3-TR4	SK-349496A	8-7		
EC-331183	3-C26	ET-310148	3-TR10	SK-349496B	8-8		
EC-338496	6-C301B	ET-349705	3-TR1	SK-349496C	8-9		
EC-352478	3-C39	ET-349705	3-TR2	SK-349496D	8-10		
EC-357723	6-C301A	ET-349705	3-TR5	SK-349496E	8-11		
ED-301911	3-D1	ET-353377	3-TR8	SK-349496F	8-12		
ED-301911	3-D2	ET-357845	3-TR12	SK-357576	8-3		
ED-301911	3-D3	EV-315541	3-VR1	SK-357576B	8-3B		
ED-301911	3-D6	EV-315541	3-VR2	SP-349489	8-13		
ED-324014	3-D5	EV-315541	3-VR3	SP-349489C	8-13B		
ED-330319	3-D4	EV-357681	5-VR201	SP-349490E	7-9A		
ED-351881	4-D102	EW-336923	7-7C	SP-349490F	7-9B		
ED-351881	4-D103	EW-346249	7-7D	SP-349490G	7-9C		
ED-351881	4-D104	EW-347898	7-7E	SP-349490H	7-9D		
ED-351901	4-D101	EW-355592	7-7A	SP-349490J	7-9E		
EF-318608	3-F1B	EW-359317	7-7B	SZ-357722	1-130		
EF-601942	3-F1A	EZ-631945	7-8	TC-356935	1-129		
EH-336776	3-FL1	HE-337047	1-H902	TC-712810	1-43		
EI-337228	3-IC3	HP-712824	1-H901	TC-712811	1-44		
EI-349590	3-IC1	MB-357571	7-5	TC-712823	1-85		
EI-349591	3-IC2	MB-712818	1-57	ZG-712816	1-53		

HX-MIO
SCHEMATIC DIAGRAM
NO. 850303A

VOLTAGE MEASURED AT PLAY MODE.
VOLTAGE ( ) IS REC MODE.

CONNECTOR(U),(C) PCB
T2070A501D U,E,B,S
502D C,A

VOLUME(U),(C) PCB
T2070A501C U,E,B,S
502C C,A

METER(U)(C) PCB
T2070A501B U,E,B,S
502B C,A

PRE AMP(U),(C) PCB
T2070A501A U,E,B,S
502A C,A

POWER SUPPLY(U) PCB
T2070A501E

POWER SUPPLY(C) PCB
T2070A502E

POWER SUPPLY(U) PCB
T2070A501E

POWER SUPPLY(U) PCB
T2070A501E

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W(J)
ALL CAPACITORS IN μF 50WV(J)
POWER TRANSFORMER IS DIFFERENT ACCORDING TO AREA

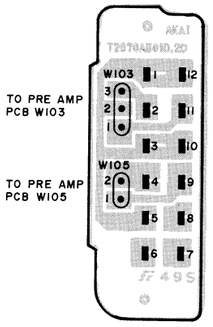
WARNING ⚠ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.
AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT

U, E, B, S	T630mA
C, A	1A/250V

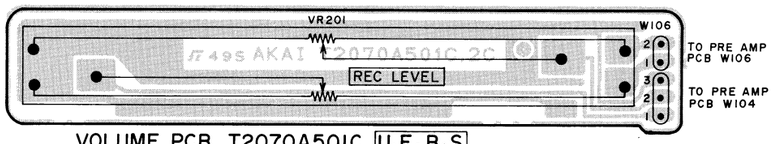
2SC2320 2SC2274K 2SB774
2SA1115 2SC2603
2SD612K
2SC3242A

AKAI MODEL HX-M10

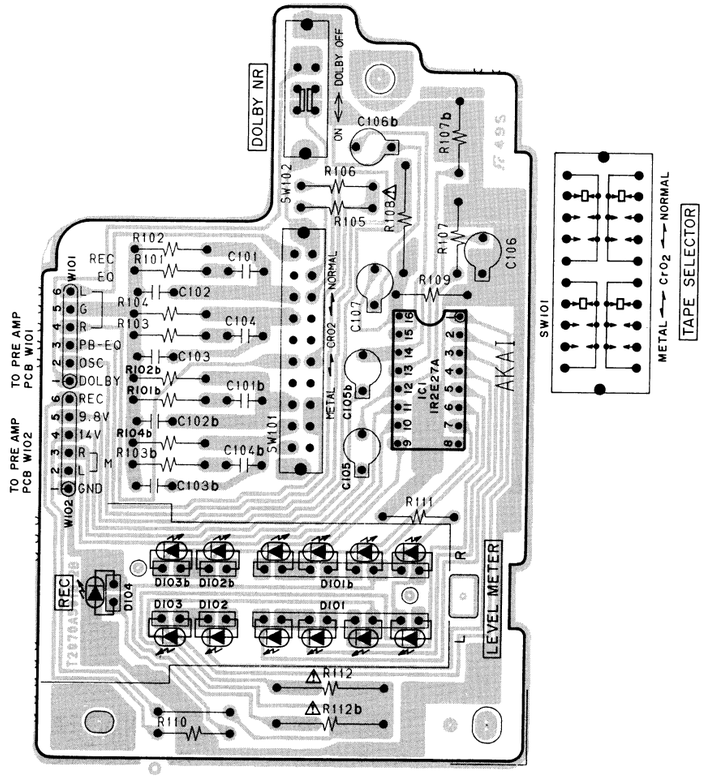
PC BOARDS SCHEMATIC DIAGRAM



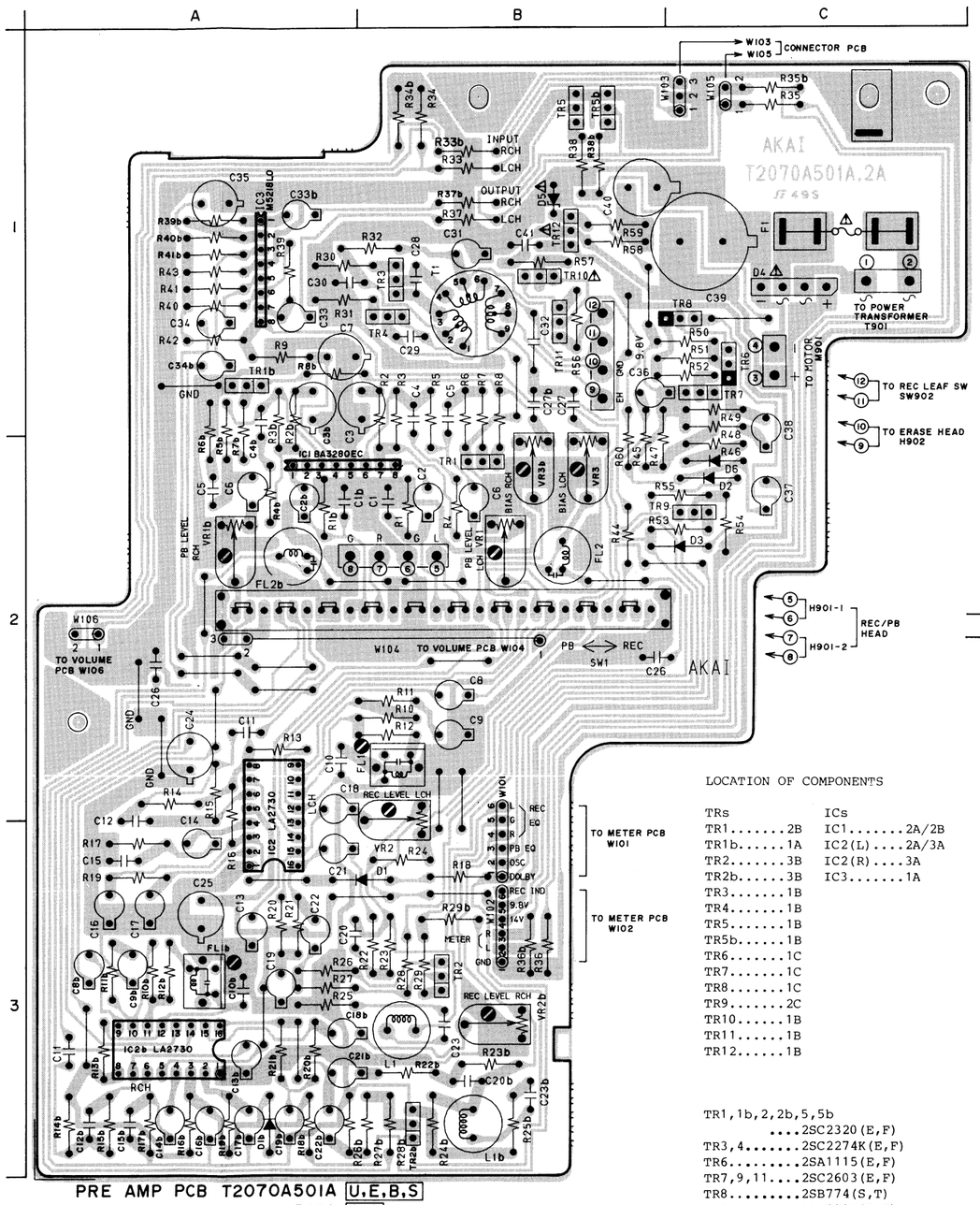
CONNECTOR PCB
T2070A501D U,E,B,S
502D C,A



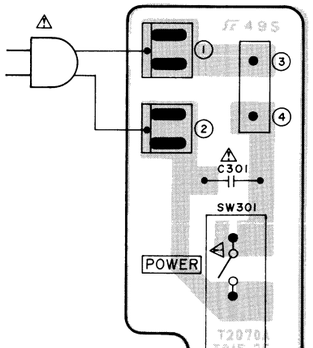
VOLUME PCB T2070A501C U,E,B,S
502C C,A



METER PCB
T2070A501B U,E,B,S
502B C,A



PRE AMP PCB T2070A501A U,E,B,S
502A C,A

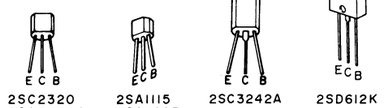


LOCATION OF COMPONENTS

TRs	ICs
TR1.....2B	IC1.....2A/2B
TR1b.....1A	IC2(L)....2A/3A
TR2.....3B	IC2(R)....3A
TR2b.....3B	IC3.....1A
TR3.....1B	
TR4.....1B	
TR5.....1B	
TR5b.....1B	
TR6.....1C	
TR7.....1C	
TR8.....1C	
TR9.....2C	
TR10.....1B	
TR11.....1B	
TR12.....1B	

TR1,1b,2,2b,5,5b ....2SC2320(E,F)
TR3,4.....2SC2274K(E,F)
TR6.....2SA1115(E,F)
TR7,9,11....2SC2603(E,F)
TR8.....2SB774(S,T)
TR10.....2SD612K(E,F)
TR12.....2SC3242A(F,G)

= PNP TRANSISTOR
= NPN TRANSISTOR



WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT